



NO. 24

MODEL NO. 24 & NO. 25 BALL BEARING PUNCH

OPERATION, PARTS & MAINTENANCE MANUAL

Model:	Purchased From:
Serial #:	Date Received:

USA  MADE

FOREWORD

This manual has been prepared for the owner and operators of Roper Whitney No. 24 and No. 25 Ball Bearing Punch. Its purpose, aside from operations instructions, is to promote safety through the use of accepted operating procedures. Read all instructions thoroughly before operating the punch.

Also contained in this manual is the parts list for your punch. It is recommended that only Roper Whitney or factory authorized parts be used as replacements.



Warranty Statement:

3 YEAR LIMITED WARRANTY

Roper Whitney ("Manufacturer") warrants, commencing with the date of shipment to first end-user ("Customer") and for a period of thirty-six (36) months thereafter, all machinery and parts manufactured by Manufacturer to be free of defects in workmanship and material. **This warranty remains in force for the above time period only if all of Manufacturer's operational procedures are followed and recommended maintenance is performed.** If, within such warranty period, any machinery or parts manufactured by Manufacturer shall be proved to Manufacturer's satisfaction to be defective, such machinery or parts shall be repaired or replaced, at Manufacturer's option. All warranty claims are made F.O.B Manufacturer's plant, providing such machinery or parts are returned freight prepaid to Manufacturer's plant or designated service center for Manufacturer's inspection. All failed parts or components must be returned to Manufacturer prepaid for inspection before credit will be issued for new parts or components. Manufacturer's obligation hereunder shall be confined to such repair or replacement and does not include any charges, direct or indirect, for removing or replacing defective machinery or parts. No warranty shall apply to machinery, or parts or accessories, which have been furnished, repaired, or altered by others so as, in Manufacturer's judgment, to affect the same adversely or which shall have been subject to negligence, accident or improper care, installation, maintenance, storage, or other than normal use or service, during or after shipment. No warranty shall apply to the cost of repairs made or attempted outside of Manufacturer's plant or designated service center without Manufacturer's authorization. No warranty shall apply with respect to machinery or part not manufactured by Manufacturer, including but not limited to motors, accessories, electrical and hydraulic components, if such machinery or part is subject to warranty by the manufacturer of such machinery or part. No warranty claims by Customer will be honored with respect to any machinery or part from which the name and date plate has been removed or is otherwise no longer located or exhibited on such machinery or part. **THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY AND IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL NOT BE SUBJECT TO ANY OTHER OBLIGATIONS OR LIABILITIES WHATSOEVER WITH RESPECT TO MACHINERY, PARTS, ACCESSORIES, OR SERVICES MANUFACTURED OR FURNISHED BY IT OR ANY UNDERTAKINGS, ACTS, OR OMISSIONS RELATING THERETO. UNDER NO CIRCUMSTANCES SHALL MANUFACTURER BE LIABLE FOR ANY CONSEQUENTIAL OR OTHER DAMAGES, EXPENSES, LOSSES, OR DELAYS HOW SO EVER CAUSED.**

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

Note: Consumable tooling is not covered under the 3 year manufacturer's warranty.

RETURN OF THE PRODUCT REGISTRATION CARD FURNISHED WITH THE PRODUCT IS NECESSARY TO OBTAIN WARRANTY COVERAGE THEREON. CARD MUST BE FULLY COMPLETED, SIGNED BY THE PURCHASER, AND IF APPLICABLE, SIGNED BY THE DISTRIBUTOR. RETURN REGISTRATION CARD TO:

Roper Whitney 2833 Huffman Blvd. Rockford, IL 61103

SAFETY INSTRUCTIONS

FOR MAXIMUM OPERATOR SAFETY DO:

1. Read and understand this manual.
2. Use only No. 20 punches and dies marked with a **W** or **R-W** designed for this tool.
3. Be sure you punch within the 20 ton capacity for No. 24 or 11 ton for No 25. Type and thickness of material versus final hole size will give you this tonnage.
4. Wear safety glasses.

FOR MAXIMUM OPERATOR SAFETY DO NOT:

1. Use punches and dies that are chipped or dulled.
2. Punch over capacity of the tool.
3. Nibble. Punch a full hole not a half hole as punch may contact die.

INSTRUCTIONS

CARE: Before attaching punch to spindle, grease punch head. Oil punch point.

OPERATION: One complete revolution (360 deg.) of the spindle lowers punch 1/2". When punching I beams, bevel dies should be used. Punch couplers have left hand thread. Punch should turn freely after installation. On contact with metal being punched, the punch should not turn. Stripper bolts must be level at all times.

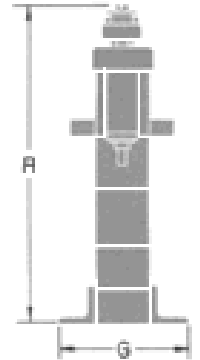
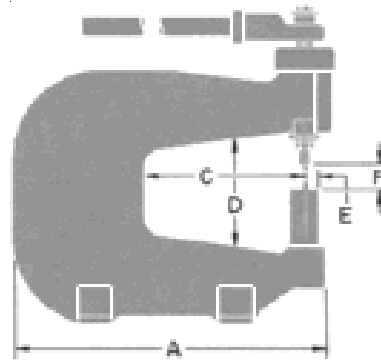
TO CHANGE DIES: Loosen die shoe set screw. Remove one die shoe bolt and pivot die shoe toward operator. Push up on die. Insert new die and die shoe bolt. Tighten die shoe set screw. Lower punch into die, check clearance and tighten both die shoe bolts.

ASSEMBLY: To assemble spindle assembly, place a small amount of heavy grease in ball race of spindle. Slide stop collar on spindle with notch "A" in stop collar in down position. Place 32 ball bearing (11/32) in ball race of spindle and thread into ball race sleeve as far as possible; turn back until ball race can be seen. Align notch "A" in stop collar with "B" start of ball race in frame and tighten the three stop collar set screws. Screw ball race sleeve into punch body until bottom of punch body. Align flats and insert set screw plugs and screws.

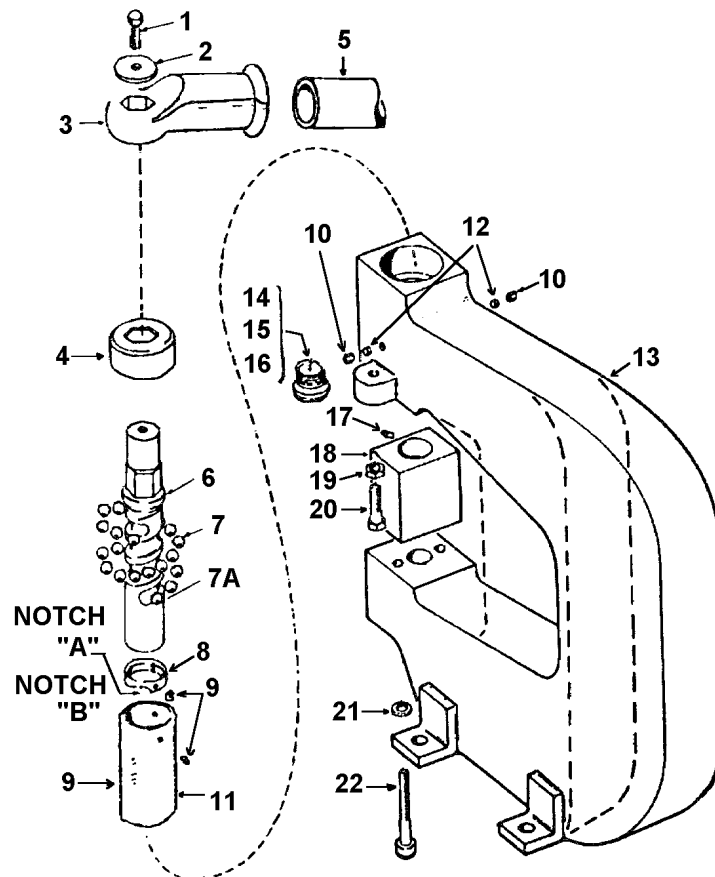
To assemble irregular shaped punches and dies, place die in frame. Do not tighten set screws. Fasten punch to spindle with coupler. Thread punch point through guide stripper and fasten guide stripper to frame using screws and spacers furnished. The guide stripper must be level with die and the punch point must never leave the guide stripper. Lower punch and align die and tighten die set screw. Raise punch and lower through die to recheck alignment.

DIMENSIONS

REFERENCE - NO. 24		
	IN.	MM
A	9 1/4	234.95
B spindle up	16 1/2	419.10
spindle down	15 1/2	393.70
C	3 3/4	95.25
D	5 3/4	146.05
E	13/16	20.62
F	3/4	19.05
G	6 3/4	161.45



NO. 24 & NO. 25 PARTS LIST



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ITEM NO.	PART NO.	PART NAME	QTY.
1	601012128	OP. HANDLE SCREW 5/16-18 X 1/2	1
2	678033116	OP. HANDLE WASHER	1
3	740460037	OPERATING HANDLE	1
4	740220072	DUST CAP	1
5	138032026	48" PIPE HANDLE	1
6	731770016	SPINDLE	1
7	600093702	11/32 BALL BEARINGS (31 PER SET)	31
7A	600093700	5/16 BALL BEARING	1
8	730260085	STOP COLLAR	1
9	621012081	STOP COLLAR SET SCREWS 1/4-20 X 3/16	3
10	600010470	BALL RACE SLEEVE SET SCREWS/ BRASS TIP	2
11	731520017	BALL RACE SLEEVE	1
12	INCL. IN #10	BALL RACE SLEEVE SET SCREW PLUGS	2
13	731140011	FRAME FOR #24	1
13	731140012	FRAME FOR #25	1
14	331002011	11/16 COUPLING NUT	1
15	331002025	3/4 COUPLING NUT	1
16	331002035	SPLIT COUPLING NUT	1
17	621012082	DIE SHOE SET SCREW 1/4-20 X 1/4	1
18	731320015	DIE SHOE	1
19	649023007	STRIPPER BOLT NUTS 1/2-13	2
20	601012280	STRIPPER BOLTS 1/2-13 X 2 1/4	2
21	678033105	DIE SHOE BOLT WASHERS 3/8	2
22	601012186	DIE SHOE BOLTS 3/8-16 X 2 3/4	2
	231940002	BALL RACE SLEEVE ASSY	1

AVAILABLE TOOLING

NO. 24, NO. 25 PUNCH



TYPE O ROUND PUNCHES AND DIES

Standard Sizes

Fractional, Drill or Millimeter	Decimal Equiv.	Punch Part Number	Die Part Number	Set Part Number	Dealer Code
1/8	.125	300200125	310200125	200200125	T-7
9/64-28 DS	.141	300200141	310200141	200200141	T-7
5/32	.156	300200156	310200156	200200156	T-7
11/64	.172	300200172	310200172	200200172	T-7
3/16	.188	300200188	310200188	200200188	T-7
13/64	.203	300200203	310200203	200200203	T-7
7/32	.219	300200219	310200219	200200219	T-7
15/64-A DS	.234	300200234	310200234	200200234	T-7
1/4-E DS	.250	300200250	310200250	200200250	T-7
17/64-H DS	.266	300200266	310200266	200200266	T-7
9/32-K DS	.281	300200281	310200281	200200281	T-7
19/64	.297	300200297	310200297	200200297	T-7
5/16	.313	300200313	310200313	200200313	T-7
21/64	.328	300200328	310200328	200200328	T-7
11/32	.344	300200344	310200344	200200344	T-7
23/64	.359	300200359	310200359	200200359	T-7
3/8	.375	300200375	310200375	200200375	T-7
25/64	.391	300200391	310200391	200200391	T-7
13/32	.406	300200406	310200406	200200406	T-7
27/64	.422	300200422	310200422	200200422	T-7
7/16	.438	300200438	310200438	200200438	T-7
29/64-11.5MM	.453	300200453	310200453	200200453	T-7
15/32	.469	300200469	310200469	200200469	T-7
31/64	.484	300200484	310200484	200200484	T-7
1/2	.500	300200500	310200500	200200500	T-7
33/64	.516	300200516	310200516	200200516	T-7
17/32-13.5MM	.531	300200531	310200531	200200531	T-7
35/64	.547	300200547	310200547	200200547	T-7
9/16	.563	300500563	310200563	200200563	T-7
37/64	.578	300200578	310200578	200200578	T-7
19/32	.594	300200594	310200594	200200594	T-7
39/64	.609	300200609	310200609	200200609	T-7
5/8	.625	300200625	310200625	200200625	T-7
41/64	.641	300200641	310200641	200200641	T-7

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AVAILABLE TOOLING

NO. 24, NO. 25 PUNCH



TYPE O ROUND PUNCHES AND DIES

Standard Sizes

Fractional, Drill or Millimeter	Decimal Equiv.	Punch Part Number	Die Part Number	Set Part Number	Dealer Code
21/32	.656	300200656	310200656	200200656	T-7
43/64	.672	300200672	310200672	200200672	T-7
11/16	.688	300200688	310200688	200200688	T-7
45/64	.703	300200703	310200703	200200703	T-7
23/32	.719	300200719	310200719	200200719	T-7
47/64	.734	300200734	310200734	200200734	T-7
3/4	.750	300200750	310200750	200200750	T-7
49/64	.766	300200766	310200766	200200766	T-7
25/32	.781	300200781	310200781	200200781	T-7
51/64	.797	300200797	310200797	200200797	T-7
13/16	.813	300200813	310200813	200200813	T-7

Coupling Nut

Sizes 1/8 - 11/16 = 331002011

Sizes 45/64 - 3/4 = 331002025

Sizes 49/64 - 13/16 = 331002035

Standard Clearances are:

Sizes 1/8 - 23/64 = .026

Sizes 3/8 - 13/16 = .038